Application No. 10/594,238 Art Unit: 1794

AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions of claims in the application.

1. (Currently Amended): A <u>iron oxide</u> whisker erecting structure, comprising:

a substrate of iron based alloy having a surface; and

iron oxide whiskers of aspect ratio higher than 20 erected on said surface,

wherein the iron oxide whiskers are crystallographically combined with adjacent crystal

grains of the substrate of iron based alloy.

2-5 (Cancelled).

6. (Currently Amended): An iron oxide whisker erecting structure as claimed in elaim 5

claim 1, wherein said iron oxide whisker is made by bringing said iron based alloy into contact

with oxidative atmosphere so as to react surface iron atoms with oxygen atoms brought into

contact therewith at high temperature, thereby attaining growth as oxide whiskers.

7-8. (Cancelled).

9. (Withdrawn-Currently Amended): A method of erecting oxide whiskers of a high

aspect ratio on a surface or surfaces of an iron or titanium based alloy making an iron oxide

whisker erecting structure, which comprises:

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bringing an said iron or titanium based alloy into contact with oxidative atmosphere so as to react the surface iron atoms or the surface titanium atoms with oxygen atoms brought into contact therewith at high temperature, thereby attaining growth as oxide whiskers

wherein whisker erecting structure, comprises:

a substrate of iron based alloy having a surface; and

iron oxide whiskers of aspect ratio higher than 20 erected on said surface,

wherein the iron oxide whiskers are crystallographically combined with adjacent
crystal particles of the substrate of iron based alloy.

10. (Withdrawn-Currently Amended): A method of erecting oxide whiskers of a high aspect ratio on a surface or surfaces of an iron or titanium based alloy making an iron oxide whisker erecting structure, which comprises bringing an said iron or titanium based alloy into contact with oxidative atmosphere so as to react the surface iron atoms or the surface titanium atoms with oxygen atoms brought into contact therewith at high temperature, thereby attaining growth as oxide whiskers as claimed in claim 9,

wherein the growth of said oxide whiskers is hastened by a temperature gradient is provided in an said iron or titanium based alloy.

11. (Previously Presented): A whisker erecting structure as claimed in claim 1, wherein said iron oxide whiskers contain non-iron metal atoms less than 10 atomic percent.